



#4

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Yaakov Naparstek et al. Art Unit : 1642
Serial No. : 09/847,637 Examiner : Unknown
Filed : May 2, 2001
Title : NOVEL AMINO ACID SEQUENCES, DNA ENCODING THE AMINO ACID
SEQUENCES, ANTIBODIES DIRECTED AGAINST SUCH SEQUENCES AND
THE DIFFERENT USES THEREOF

BOX MISSING PARTS

Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

In response to the communication dated June 1, 2001 (copy enclosed), applicants submit herewith a Sequence Listing in computer readable form as required by 37 CFR §1.824. In addition, applicants submit a substitute Sequence Listing as required under 37 CFR §1.823(a) and a statement under 37 CFR §1.821(f).

Applicants respectfully request entry of the paper copy and computer readable copy of the Sequence Listing filed herewith for the instant application. Furthermore, applicants request entry of the following amendments.

In the specification:

Replace the original Sequence Listing with the substitute Sequence Listing filed herewith.

Replace the paragraph beginning at page 4, line 2, with the following rewritten paragraph:

--Fig. 1, *Mycobacterium Tuberculosis*, rat HSP 60 and human HSP 60 (sequences P06806, P19227 and P10809, corresponding to SEQ ID NOs:6, 7 and 8 respectively), were compared with pileup program from GCG-Wisconsin Package v9.0. The conserved regions are

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

Date of Deposit

AUGUST 1, 2001

Signature

Kathleen Philpot

KATHLEEN PHILPOT
Typed or Printed Name of Person Signing Certificate

indicated (consensus; SEQ ID NO:9). Bold, underlined residues represent the preferred peptides.--

Replace the paragraph beginning at page 4, line 13, with the following rewritten paragraph:

--Fig. 5, the common motif within peptides 6 (amino acid residues 31 to 46 of SEQ ID NO:6), 7 (amino acid residues 37 to 52 of SEQ ID NO:6) and R5 (amino acid residues 61 to 80 of SEQ ID NO:7), V--E--WG-P (amino acid residues 18 to 22 of SEQ ID NO:9) is shown.--

Replace the paragraph beginning at page 12, line 9, with the following rewritten paragraph:

--It is interesting to note that one of the two self protective epitopes is the self peptide 5, which is the homologous rat epitope to the bacterial protective peptide 6. Moreover, immunization with the bacterial peptides 6 and 7 and with the mammalian peptide 5 led to the production of anti bacterial HSP 6 and anti bacterial HSP antibodies, as well as protection against disease induction. Observing the primary structure of these three peptides leads to the conclusion that they express a common motif (V--E--W G-P; amino acid residues 18 to 22 of SEQ ID NO:9) which might be the protective motif of these peptides (Figure. 5).--

Replace Table 4 beginning at page 20, line 1, with the following rewritten table:

--Table 4
Potential epitopes of MT HSP 65kD

Location of the peptide (aa residues of SEQ ID NO:6)	Sequence of the peptide	Length	Experimental peptide matching
35-43	<u>G-RNVVLEKKW-G</u>	9	6,7
123-132	<u>A-VEKVTETLLK-G</u>	10	21
135-143	<u>A-KEVETKEQI-A</u>	9	21
319-332	RKVVVTKDAETTIVE	14	none
357-367	<u>S-DYDREKLQERL-A</u>	11	59
383-396	<u>A-TEVELKERKHRIED-A</u>	14	63
183-195	<u>G-LQLELTEGMRFDK-G</u>	13	31
259-270	<u>S-TLVVNKIRGTFK-S</u>	12	45

REMARKS

Applicants hereby submit that the enclosures fulfill the requirements under 37 C.F.R. §1.821-1.825. The amendments in the specification merely replace the paper copy of the Sequence Listing with an amended Sequence Listing containing the consensus sequence shown in Figure 1. Furthermore, the amendments insert sequence identifiers in the specification. No new matter has been added.

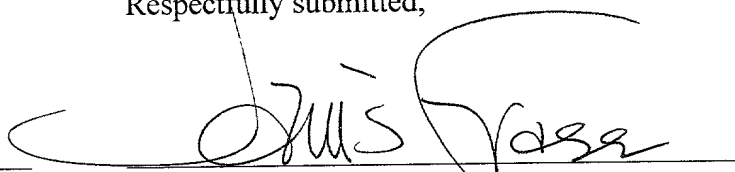
Attached hereto is a marked-up version of the changes made to the specification by the current amendment.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date:

Aug. 1, 2001



Janis K. Fraser, Ph.D., J.D.
Reg. No. 34,819

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

“Version With Markings to Show Changes Made”

In the specification:

Paragraph beginning at page 4, line 2, has been amended as follows:

Fig. 1, *Mycobacterium Tuberculosis*, rat HSP 60 and human HSP 60 (sequences P06806, P19227 and P10809, corresponding to SEQ ID NOs:6, 7 and 8 respectively), were compared with pileup program from GCG-Wisconsin Package v9.0. The conserved regions are indicated (consensus; SEQ ID NO:9). Bold, underlined residues represent the preferred peptides.

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